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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/684,988 | 10/10/2000 | Alan G. Jack | 003300-688 | 2765 |

7590 10/31/2002

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EXAMINER

GONZALEZ, JULIO C

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 10/31/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-------------------|--------------|----------|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/684,988 | JACK ET AL. | <i>M</i> |
| | Examiner | Art Unit | |
| | Julio C. Gonzalez | 2834 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 20 August 2002.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-21 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 10 October 2000 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on 20 August 2002 is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

Drawings

1. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on 08/20/02 have been disapproved because they introduce new matter into the drawings. 37 CFR 1.121(a)(6) states that no amendment may introduce new matter into the disclosure of an application. The original disclosure does not support the showing of having wires connected to the stator teeth and having the wires connected to source of supply and the tooth having a winding composed of one wire.

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the electrical supplies (plural) of every tooth of the stator sections been shifted 180 degrees electrical relative to “electrical supplies of every tooth” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-21 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The proposed amendment filed 08/20/02 introduces new matter since the specifications do not support alternating the supply wires connected to the winding of each tooth of a first set of stator sections relative to the supply wires connected to the windings of the teeth of a second set of stator sections and having the electrical supply wires connected to a tooth 7a of the second stator is alternated in relation to the electrical supply wires connected to the corresponding tooth 6a of the first stator as disclosed in the paragraph introduced in page 3, line 34.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicant discloses in claim 1 that each section would receive electricity from an electrical supply. What are these “electrical supplies”? Can these “electrical supplies” be shown in the drawings? It may seem, from the claim, like if the electrical supplies of each section of every tooth are the windings.

In order to advance prosecution in the merits, the Prior Art will be applied as best understood by the examiner.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-3, 9-12, 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendershot, Jr. in view of Suzuki et al.

Hendershot discloses a stator having two stator sections 2, 10 having the same amount of teeth and the teeth having windings (see figure 2A). Also, the stator sections are mutually phase shifted (see figure 1A).

However, Hendershot does not disclose that the stator sections are shifted by 180 degrees.

On the other hand, Suzuki et al discloses for the purpose of restraining effectively unwanted vibration that the stator sections 5a, 5b are phase shifted by 180 degrees (see figures 2, 3).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design an electrical machined as disclosed by Hendershot and to modify the invention by shifting the stator sections by 180 degrees for the purpose of restraining effectively unwanted vibration as disclosed by Suzuki et al.

9. Claims 4 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendershot and Suzuki as applied to claims 1-3 and 14 above, and further in view of Taguchi.

The combined electrical machine includes all of the elements above. However, the combined electrical machine does not disclose the use of magnetic powder.

On the other hand, Taguchi discloses for the purpose to reduce the magnetic reluctance of a magnetic path between the stator and rotor that the stator 4 is made of magnetic powder (see constitution).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the combined electrical machine and to use magnetic powder for the purpose to reduce the magnetic reluctance of a magnetic path between the stator and rotor as disclosed by Taguchi.

10. Claims 8, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendershot and Suzuki as applied to claims 1-3 above, and further in view of Uchida et al.

The combined electrical machine includes all of the elements above. However, the combined electrical machine does not disclose that the tips of the teeth extend axially.

On the other hand, Uchida discloses for the purpose of securing effectively the insulation between the windings and the core that the tips of the teeth extend axially (see figures 2, 3).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the combined electrical machine and to extend the teeth axially for the purpose of securing effectively the insulation between the windings and the core as disclosed by Uchida.

11. Claims 5-7 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendershot, Suzuki and Taguchi as applied to claim 4 above, and further in view of Nishiyama et al.

The combined electrical machine includes all of the elements above. However, the combined electrical machine does not disclose that the stator sections are made of separated units.

On the other hand, Nishiyama et al discloses for the purpose of reducing cogging in a motor that the stator is made up of separated units (see figures 1, 2 and 4).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the combined electrical machine and to have an

stator been made up of separated units for the purpose of reducing cogging in a motor as disclosed by Nishiyama et al.

Response to Arguments

12. Applicant's arguments filed 08/20/02 have been fully considered but they are not persuasive.

Claim 1 discloses that the stator section may be shifted $360^\circ/n$ electrical \mp an angle. The angle referred to claim 1 may change according to the claim and respectfully, Hendershot discloses two stator sections wherein the angle of the stator sections is shifted (see figure 3). Moreover, according to the Merriam-Webster's Collegiate Dictionary, *substantially* means being largely but not wholly that which is specified. Claim 1 discloses a "substantially" phase shift of 360 degrees, thus the phase shift may be applied to other angles. Also, Suzuki et al discloses two stator being shifted axially by 180 degrees (see figure 2).

13. In response to applicant's arguments, the recitation an induction machine has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the

process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

14. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Hendershot, Jr. and Suzuki et al disclose improvements to motor structure, in which both references are in the related field to anyone of ordinary skill in the art.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

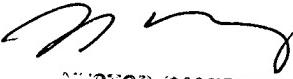
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julio C. Gonzalez whose telephone number is (703) 305-1563. The examiner can normally be reached on M-F (8AM-5PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-77227722 for regular communications and (703) 305-1341 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Jcg

October 29, 2002



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